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Date: 2/13/2013 6:37:13 PM

Subject: Donlin EIS: Draft Meeting Notes from the Agency Scoping meeting, February 6, 2013

Attachments: Donlin Agency Scoping Mtg Feb 15 Draft Minutes.docx
Signin sheet.pdf
Donlin_Agency Scoping Meeting_130206 compressed.pdf
ADEC Donlin Cooperating Agency Meeting Information.docx

Friends,

Please find attached the draft minutes from the Agency Scoping Meeting held at the BLM Anchorage field office on February 6, 2013. Also included in this note are three attachments: the sign-in sheet, the Donlin Gold presentation, and the ADEC submission.

We made a big effort to capture comments, but inevitably some slipped through. We do anticipate that agencies will be submitting written scoping comments, and those would supersede the briefing provided during this meeting.

As with Minutes from the routine Cooperating Agency Meetings, we would like to offer you an opportunity to provide edits. Please make changes in Track Changes, and return your files to me by Wednesday, February 20, 2013.

Thank you very much.

Taylor Brelsford
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Donlin Gold Project EIS

Agency Scoping Meeting
Anchorage, BLM Anchorage Field Office
Wednesday, February 6, 2013, 1 pm – 5 pm.

Meeting Notes

Attendance

As noted below. Sign-in sheets attached.

Introductory Remarks

Glen Justis provided opening remarks in his capacity as moderator/facilitator for the meeting. He welcomed the participants, and noted that the Corps leads an independent review of the proposed project from Donlin Gold. The Corps is responsible for the NEPA process and for ensuring that the requirements of our public interest review, the Section 404(b)(1) Guidelines, and a number of Federal laws, regulations, Executive Orders, and guidance documents are met. The Corps is the independent decision maker for decisions, based on the EIS, and the Corps will focus on key regulatory issues. At the same time, the Corps will ensure that other Federal, Tribal, State, and local needs and requirements are addressed in the document. This scoping meeting should focus on identifying issues and concerns of each of your agencies' or Tribes' trust responsibilities, legal requirements and so on, so as the EIS is developed the consequences of project impacts can be addressed. [This summary is paraphrased and condensed from Glen's written comments].

Part 1: The Donlin Gold Presentation

Stan Foo, Nick Enos, James Fueg, and Kurt Parkan presented a detailed overview of the Donlin Gold Project. A copy of the slides is attached to these notes.

Questions Regarding the Donlin Presentation:

Q. **Robert Golley, Chuathbaluk Traditional Council**: How do you plan to use the expertise from Barrick in Nevada to adapt it to Alaska, especially regarding mercury abatement?

A: We have some of the design applied to Nevada operation. They have retrofitted and advanced some of that design experience. For example, Gold Strike just redid their mercury abatement systems. You have to accommodate different water, temperate, air temp, ore components. In some ways it is easier in Alaska because of the cooler temperatures for air and water.

Q. **Father Michael Fredericks, Chuathbaluk Traditional Council**: How do we [as employees of the Traditional Council] work better with Donlin and with our Village Corporations and our Regional corporations so that we can solidify your community goals (fostering youth, encouraging them to stay in school, get jobs as engineers or truck drivers at the mine)? We have the opportunity to establish a better approach so that kids have opportunities. You have a 90% shareholder hire rate. I hope this process will see a more cohesive strategy at a local level to encourage kids to have better futures whether they go into mining or not. Please keep that in mind.

A: We couldn't agree with you more. That's part of our workforce advocacy process. We will develop a talent bank well in advance of the time we would hire people.

Part 2: Agency Presentations

Don Kuhle, Corps – To meet the agency responsibilities under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act, the Corps has three tasks: the NEPA analysis, the Public Interest Review, and determination of the Least Environmentally Damaging Practicable Alternative (LEDPA) under the 404 (b)(1) Guidelines. These responsibilities focus on protecting the navigable waters and waters of the U.S. (i.e. wetlands). For potentially affected aquatic resources, the EIS must identify the measures to avoid, minimize and mitigate impacts. Under the new 2008 mitigation rules, this may include a mitigation bank, in-lieu fee mitigation, and the applicants own wetlands mitigation efforts.

Allen Bittner, BLM Anchorage Field Manager – The 6 BLM specialists were introduced, and Alan noted that the BLM consolidate their comments and provide them in writing.

Molly Cobbs, NEPA Coordinator – Many of the key issues have been identified in public scoping the Iditarod trails technical session. These include barge traffic, subsistence practices, and wildlife population impacts close to the mine operations if workers start hunting nearby. New issues include the source of gas for the pipeline, funding for pipeline, practical step to insure effective monitoring in perpetuity. How is the cyanide being transported to the mine? On the NEPA process, what will be the Corps' process to carry issues forward it into the analysis, and what role would the cooperators have in this?

Merlyn Scheleske, Fisheries Biologist – The EIS must address containment barges up & down river and workforce needed for it, bank erosion rates, changing river alignment, and the risk of increased turbidity from barge traffic. What would be the impact to belugas related to Cook Inlet gas transport? Are there other alternatives to get fuel to the site? Chinook numbers have been really low. They could be listed in the future.

Bruce Seppi, Wildlife Biologist – There are many different concerns about barge traffic. There are areas above Aniak where you can't even pass with a skiff; I have seen barges wait for more water. Since you're linking 4 barges together, that's actually 12 a day. How much cyanide are you using (tons in the life of the mine) and what are spill contingencies for it?

Kevin Keeler, Iditarod Trail Specialist – The scope of this project is very large. Communities want a spur pipeline out to them, how would this be considered? The Iditarod is collocated from Old Skwentna to Rainy Pass checkpoint. When you do NEPA and Section 106 at the same time, you need to identify avoidance, minimize and mitigation measures. This hasn't been communicated to the public yet. The removal of vegetation will result in visual degradation of the trail. The treatment of fill could impact trail users. Illegal use of the corridor will be a concern. The EIS should consider the alternative of HDD under Iditarod.

Jenny Blanchard, Cultural Resource Specialist – The agencies are working together to develop a Programmatic Agreement for Section 106. We want to make sure scope of analysis of impacts to cultural resources appropriate. It should include indirect effect (i.e., erosion on Kuskokwim) on resources.

Mark Jen USEPA Region 10 – EPA reviewed many important issues, including:

- all cooperators should be involved in the P&N;
- agencies should have a role in alternatives development, starting with criteria;
- criteria for LEDPA;

- life cycle economic costs;
- integrate Section 106 and Clean Water Act processes so you have a coordinated decision;
- financial assurance strategy is critical and the EIS could be rated poorly if this is absent;
- failure of any mining facilities (e.g. overflowed lake, dam failure);
- acid rock drainage & leeching – compared to other mineralized areas in Alaska and Lower 48;
- open pit lake and impacts of overflow;
- adequacy of air quality data including hazardous air pollutants (e.g. mercury and new 2010 EPA mercury emission standards);
- efficiency of mercury capture in the abatement processes, fugitive mercury, estimated exposures, mobilization and interaction with wind erosion
- methylation of mercury in wetlands is seasonally variable so adequate data should be collected;
- pipeline crossings – make sure the streams are characterized;
- quantity and source of water that will be withdrawn for construction of all facilities (e.g. Port, roads);
- pipeline construction in winter, how is hydrostatic test conduct, disposal of test waters, drilling muds from HDD sites?;
- wetlands need functional wetlands assessment as a basis for mitigation;
- Kuskokwim River erosion, loss of cultural resources, shallow areas affecting barge transportation, size of barges, any planned dredging;
- Fish populations, contamination resulting from legacy mines in the drainage
- hazardous material planning (underground injection well);
- ballast water and invasive species, including the national legal framework and the Coast Guard's jurisdiction;
- blasting management plan for the pipeline;
- cultural impacts to communities transitioning from subsistence to cash, especially in the post-mining scenario;
- access to traditional use areas;
- use Traditional Ecological Knowledge to help guide avoidance of direct resource impacts;
- Environmental Justice and "meaningful engagement" for the communities, including adequate Yup'ik language translation; more outreach, more fact sheets, workshops
- HIA and protection of children from health & safety risks;
- For cultural resource impact assessment, insure adequate consultation with the tribes;
- more issues will follow with the letter,

Phil Brna, USFWS – Official comments will be submitted in writing. The Service acts under the Fish and Wildlife Coordination Act, as well as specialized authorities under MMPTA, ESA, Bald Eagle Protection Act, MMPA, ANILCA in regard to subsistence, and the mandates for the Yukon Delta NWR.

Jeff Bruno, ADNR Office Project Management & Permitting – There is direct communication with all of the departments to simplify coordination with all the State agencies. We will put comments in writing in the future. The state is interested in clarification on the Rapid Ecoregion

Assessment (REA). We hope to avoid duplication of effort or see conflicting information emerge from the NEPA and REA exercises.

Lee McKinley ADF&G Division of Habitat – Our department exercises authority over anadromous streams, and critical habitat areas (pipeline areas). We will submit comments in writing.

Sarah Yoder, ADHSS Health Assessment Program – The HIA is an independent technical exercise, but it will be integrated into the health section. A lot of our issues have been mentioned during scoping, including work force influx, increased economic development. Vulnerability (suicide, alcohol) is high in the region. We don't want the project to make new health challenges, and instead the EIS should consider whether the project provides an opportunity to improve health in the project area.

Gary Mendivil ADEC Commissioners Office – NEPA is a process law, not an environmental law, and interagency fluency and coordination is, key. We all need to learn where the various agency authorities overlap and where those authorities might conflict. We must educate each other on how we work through processes and how our procedures work. There are so many technical pieces, and we must all act as translators for each other. Gary gave an example of a meeting on the North Slope, in which the many meanings of the term "oil spill" became apparent. For industry, the term implied as little as 2 drops; for EPA, it was 5 gallons; and for the whaling captains, it implied a spill the size of the Exxon Valdez. That's how challenging it will be when you're not speaking the same language

ADEC is mostly a permitting authority while NEPA looks at the total picture. The ADEC submission was shown on the screen, and Gary discussed the example of specific air quality permits, linked to a larger set of related NEPA analysis topics. The ADEC submission is attached to these notes.

Lisa Feyereisen, Chuathbaluk Tribal Administrator – The scoping process is taking place right now but there is not a definite pipeline route. There are still studies on the Jones Realignment, for example, so we can't really do an adequate job on scoping these issues. The barge traffic in the National Wildlife Refuge may impact migratory birds, right next to the water. Waves continue for a long period of time, following passage of the barge. With subsistence nets, you don't fish when a barge is out there. It is so dangerous to follow behind the barge. If someone has to access emergency services, you might need to get in a boat to go to the next village. It could quadruple the time it takes to access emergency services. We are suffering from low Chinook runs in the last few years. There are trends in the Chinook population, but they haven't looked at the smolt survival and the relation to water level. The barge traffic could be related to low smolt survival. This is a difficult study, but would be important to capture the information. We are also concerned about contamination to sculpin below the project site [referring to a study of mercury contaminants in fish tissue, conducted by the BLM in relation to the reclamation effort at Red Devil.] If it's already an issue from past mines, then the mine will add to the contamination. Migratory waterfowl would land on tailing pile. What about dust from trucks, and how can water be used to suppress dust in the winter? What is the financial assurance strategy to address health impacts after the mine closes? There's no money set aside for the workers that have higher cancer rates.

It is a hard balancing act, and our culture is vulnerable. Our culture is being lost in a number of areas. It is not a static thing, it is dynamic. This region is one of the last areas to have school

systems (1950-60s). We are traditionally a transient culture but when we had to reside in the village for the children to attend school, we lost a lot of culture. This was a change to being taught verbally instead of learning by observing and doing. There may be positive benefits to employment, but too much time away from the communities can cause problems. NYAC mine had a community, rather than just an encampment. The separation of families for extended periods of time is negative. The positive is obviously the jobs.

Dave Cannon, Napaimute Native Village– The key is the unforeseen big issues: what if barges can't make it to Jungjuk? What is the contingency? Dredging would be a big concern for people up and down the river. What if there isn't enough acid buffering material on-site? Where is the site where you would get more carbon material? The word "ensure" is not a good word to use because nothing can be ensured. We'd like to see a plan to minimize invasives. When they do come into the region, how would they be taken care of? One particular risk is the heavy equipment needed for the pipeline construction. The project should [provide for on-going water quality monitoring on the Kuskokwim River. There is sure to be an incident on the river with 20 years of barging so we want to know about the fuel containment materials. The EIS should analyze mercury off-gassing from the waste rock.

Question & Answer Open Forum:

Q: **Dave Cannon, Napaimute Native Village**– Could we get an explanation of the Rapid Ecoregion Assessment (REA)?

A: It's a BLM process; a way of assessing a large region. There's overlap of that region and the state region. The Kuskokwim Plan has not been updated in 20 years. Bruce Seppi also elaborated to say that it is a landscape scale assessment with multiple agencies working to complete a baseline statement in 18 months on all plants, animals, for planning purposes. It's a current ecological snapshot. This one includes the Kuskokwim Region. Donlin Mine does come up in the discussions, but it is not a focus of the assessment. Bruce offered to provide contacts.

Q: **Bob Charles, Knik Tribe** – He was given very late notice for the scoping meeting. They would like a separate meeting.

A: Don explained that Amanda Shearer has been trying to connect with the tribe. The corps received the tribes letter recently, and tried to get in touch several times. The Corps wants to give them the information they need. Amanda will talk further with Bob.

Q: **Nick Enos, Donlin Gold**: Could I get more details on the contaminated sculpin study on Crooked Creek? Matt Varner from BLM conducted the study, and Teresa McPherson from BLM provided a copy to Donlin Gold. .

Taylor Brelsford, URS – In regard to the Scoping Process, we applaud agencies on joining in the scoping meetings and offering comments today. To provide more timely information on the discussions during the scoping meetings, we've put together quick issues summaries, of about two pages length, for the first four communities. We'll post several more this week. Following scoping, we welcome the agencies participation in the on-going process to develop building-blocks in the EIS, including the chapter 1 on purpose and Need and chapter 2 on Alternatives. We also continue to meet in the bi-weekly cooperating agency meetings. This has been a process of robust collaboration to date, and we are grateful for the effort the agencies are putting into this.

Gary Mendivil, ADEC – Let me describe a "kumbaya moment". We are climbing a mountain together and we will reach the top. It will be worth it, but it will be painful along the way. We will fall into regulatory crevasses. This will be a long process, over two years. The key thing to remember is that Don and Taylor will be our mountain guides. The fog will lift. It is like raising teenagers. Constantly remind them to do their homework. We want a legally defensible document at the end.

David Seris, U.S. Coast Guard - Let us know as early as you can if there will be a pipeline bridge river crossing because permitting that, would be under our jurisdiction. In regard to the dredging, the Kuskokwim River is not a federally maintained channel.

The meeting adjourned early at 4:30 pm.

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Donlin Gold Project

Environmental Impact Statement

COOPERATING AGENCY MEETING – FEBRUARY 6, 2013

PLEASE PRINT Name	Affiliation (if any)	E-Mail or Address
50. Heather ~~Scallan~~ Scannell		on the phone
51. Randy Bates	ADF&G	on the phone
52. Dave Sarus	USCG Juneau	on the phone
53. Brian McAffee FWS	Yukon Delta Refuge	on the phone
54. [illegible]	[illegible]	
55. Nancy Dargio	URS	
56. Lori Verbrugge	USFWS	lori_verbrugge@fws.gov

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Environmental Impact Statement

COOPERATING AGENCY MEETING – FEBRUARY 6, 2013

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58. Mark Jen	EPA	jen.mark@epa.gov.
59. TAMI FORDHAM	EPA	fordham.tami@epa.gov✓
60. Jenny Blanchard	BLM	jblanchard@blm.gov
61.		
62.		
63.		

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Environmental Impact Statement

COOPERATING AGENCY MEETING – FEBRUARY 6, 2013

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4. Moxie Alexie	URS	Moxie.Alexie@URS.com
5. Chantelle Phillips	CTC	ctc.chantelle@gmail.com
6. Scott Pexton	ADNR	Scott.Pexton@alaska.gov
7. Jeff Bruno	ADNR	jeff.bruno@alaska.gov

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Environmental Impact Statement

COOPERATING AGENCY MEETING – FEBRUARY 6, 2013

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11. Savan Yoder	ADHSS	savan.yoder@alaska.gov
12. Jorjena Daly	BLM	jdaly@blm.gov
13. GARY MENDIVIL	ADEC	GARY.MENDIVIL@ALASKA.GOV
14.		

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COOPERATING AGENCY MEETING – FEBRUARY 6, 2013

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44. Gary Reimer	URS	Gary.Reimer@URS.com
45. Bill Craig	URS	bill.m.craig@urs.com
46. Stephen Trimble	URS	stephen.trimble@urs.com
47. Herman Wong	EPA	
48. Lorraine Edmonds	EPA	
49. Randy Bates ?	Palmer Habitat ADF&G	

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Environmental Impact Statement

COOPERATING AGENCY MEETING – FEBRUARY 6, 2013

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16. Robert Golley Jr	Chuathbaluk Traditional council	ctc.robertgolley@gmail.com
17. Fr. Michael Fredericks	CTC	ctc-envg yahoo.com
18.		
19.		
20.		
21.		

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Environmental Impact Statement

COOPERATING AGENCY MEETING – FEBRUARY 6, 2013

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37 Don Kuhle	USACE	don.p.Kuhle@usace.army.mil
38. Dave Cannon	Napaimute	deannonnapaimiteed@earthlink.net
39. Renee Evans	ADEC	renee.evans@alaska.gov
40. Molly Cobbs	BLM	mcobbs@blm.gov
41. Nick Enos	Donlin Gold	RENOS@DONLINGOLD.COM
42. Bruce Seppi	BLM	bseppi@blm.gov

DONLIN GOLD
Project Overview

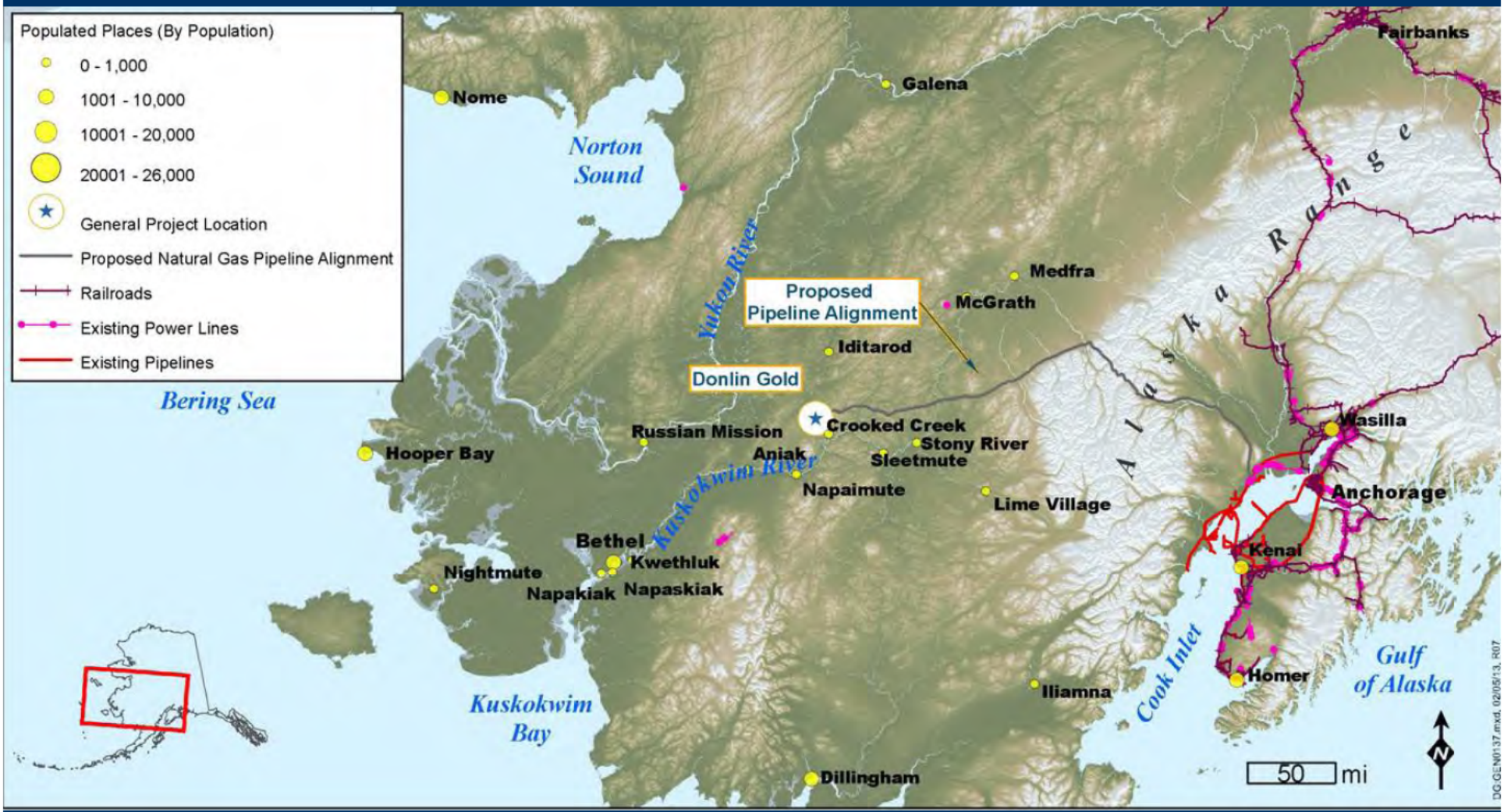
EIS Cooperating Agency Scoping Meeting

BLM Anchorage Field Office
February 6, 2013

Agenda

- Introduction
- Project Summary
- Geology & Mining
- Mill/Process
- Water Management
- Logistics & Infrastructure
- Reclamation & Closure
- Community Engagement

Location


Populated Places (By Population)
0 - 1,000
1001 - 10,000
10001 - 20,000
20001 - 26,000
General Project Location
Proposed Natural Gas Pipeline Alignment
Railroads
Existing Power Lines
Existing Pipelines
Bering Sea
Nome
Norton Sound
Galena
Fairbanks
Yukon River
Proposed Pipeline Alignment
Medfra
McGrath
Iditarod
Donlin Gold
Alaska Range
Crooked Creek
Russian Mission
Hooper Bay
Aniak
Stony River
Sleetmute
Napaimute
Lime Village
Masilla
Anchorage
Kuskokwim River
Bethel
Kwethluk
Nightmute
Napakiak
Napaskiak
Kenai
Cook Inlet
Gulf of Alaska
Homer
Iliamna
Kuskokwim Bay
Dillingham
50 mi
N

Donlin Camp

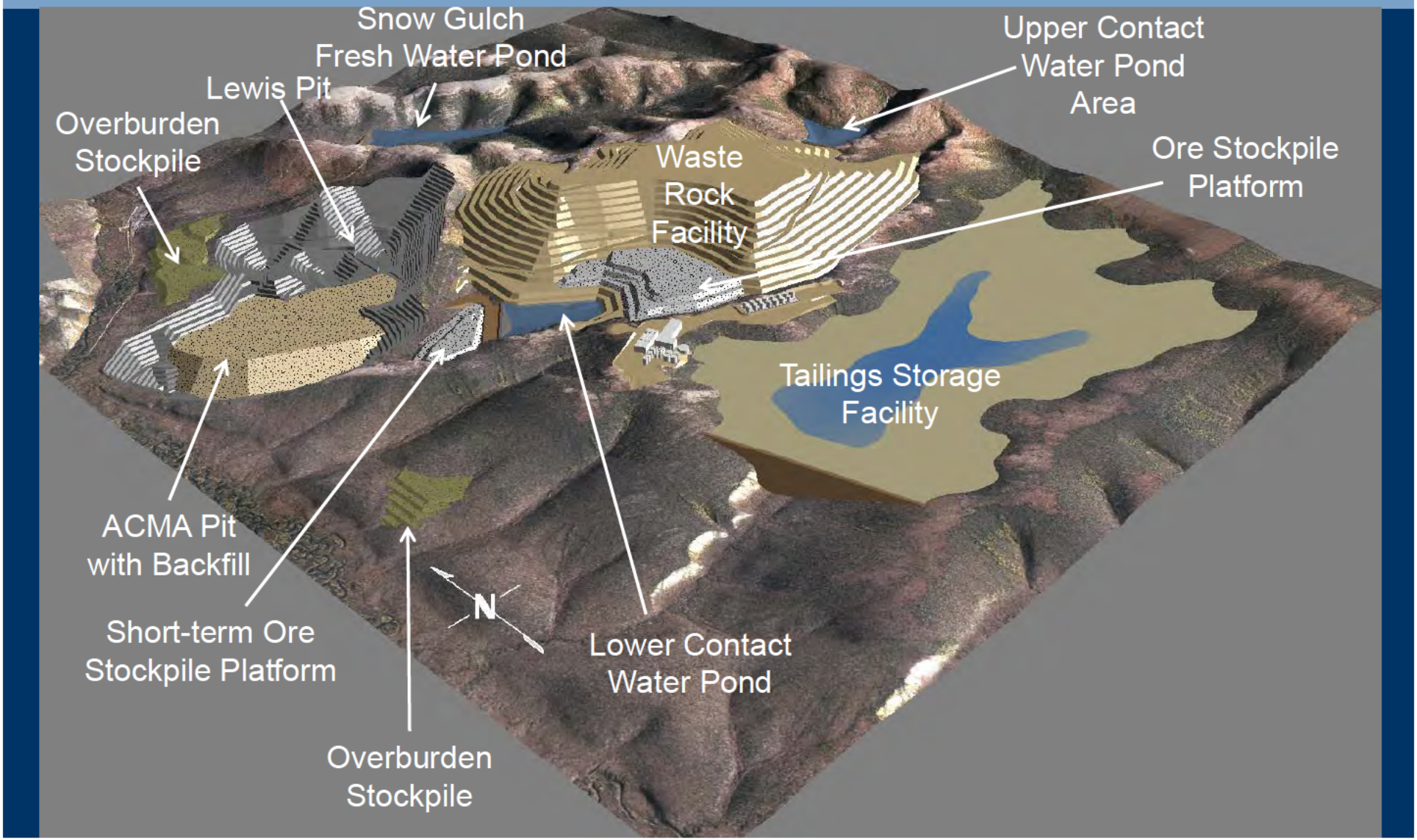
Donlin Gold

- Donlin Gold LLC is 50/50 partnership
  - Barrick Gold US
  - NovaGold Resources
- Operates under land agreements w/ ANCSA landowners
  - Calista Corporation (Mining Lease)
  - The Kuskokwim Corporation (Surface Use)
- Project office located in Anchorage
  - ~40 employees

Project Summary

- Reserve: > 33 million ounces Au (~500M tons ore)
- Mine Life: ~27 years
- Production: >1 million ounces annually
- Operation: Open-pit, conventional truck & shovel
- Milling: 59k st/d, sulfide flotation, Pressure Oxidation, Carbon-in-Leach (CIL) recovery
- Strip ratio: ~5.5:1 = ~3B tons waste rock
- Tailings: Fully lined storage facility
- Power: ~150MW, supplied by 313 mile, 14" buried natural gas pipeline
- Logistics: All consumables supplied by Kuskokwim River transportation system w/ port near Jungjuk Creek

Site Layout


Snow Gulch
Fresh Water Pond
Lewis Pit
Overburden
Stockpile
Upper Contact
Water Pond
Area
Ore Stockpile
Platform
Waste
Rock
Facility
Tailings Storage
Facility
ACMA Pit
with Backfill
Short-term Ore
Stockpile Platform
N
Lower Contact
Water Pond
Overburden
Stockpile

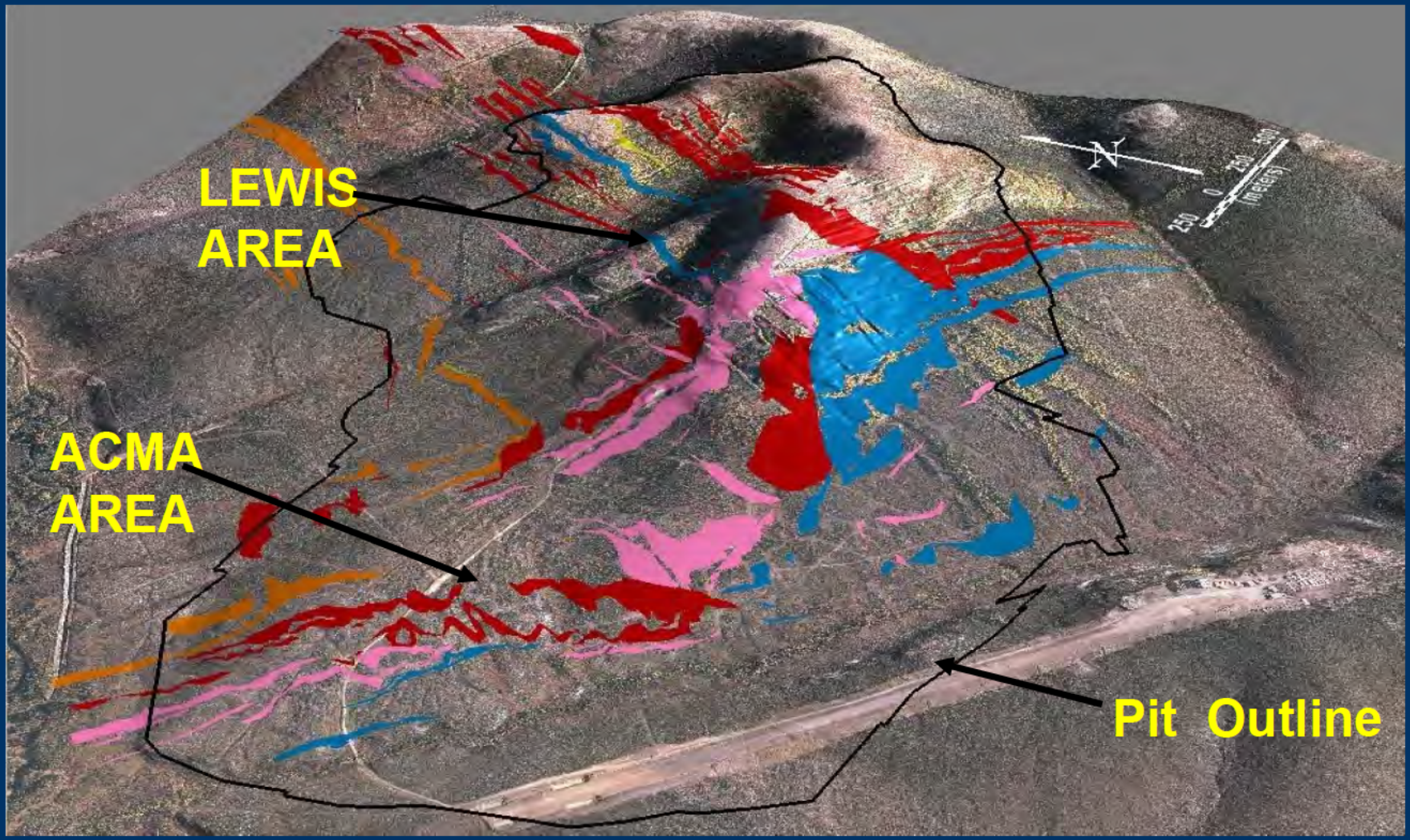
Disturbance Footprint

- Facilities Study Area (FSA)
  - Footprint ~ 10,000 acres
  - Wetland ~5,300 acres
- Pipeline Study Area (PSA)
  - Footprint ~ 6,300 acres
  - Wetland ~ 1,600 acres
- Aquatic Habitat
  - Nearly 100% direct impact to American and Anaconda creeks
  - Reduction in Crooked Creek streamflow ~2-25%
  - Total temporary/permanent linear stream impacts ~75 miles

Economic Impacts

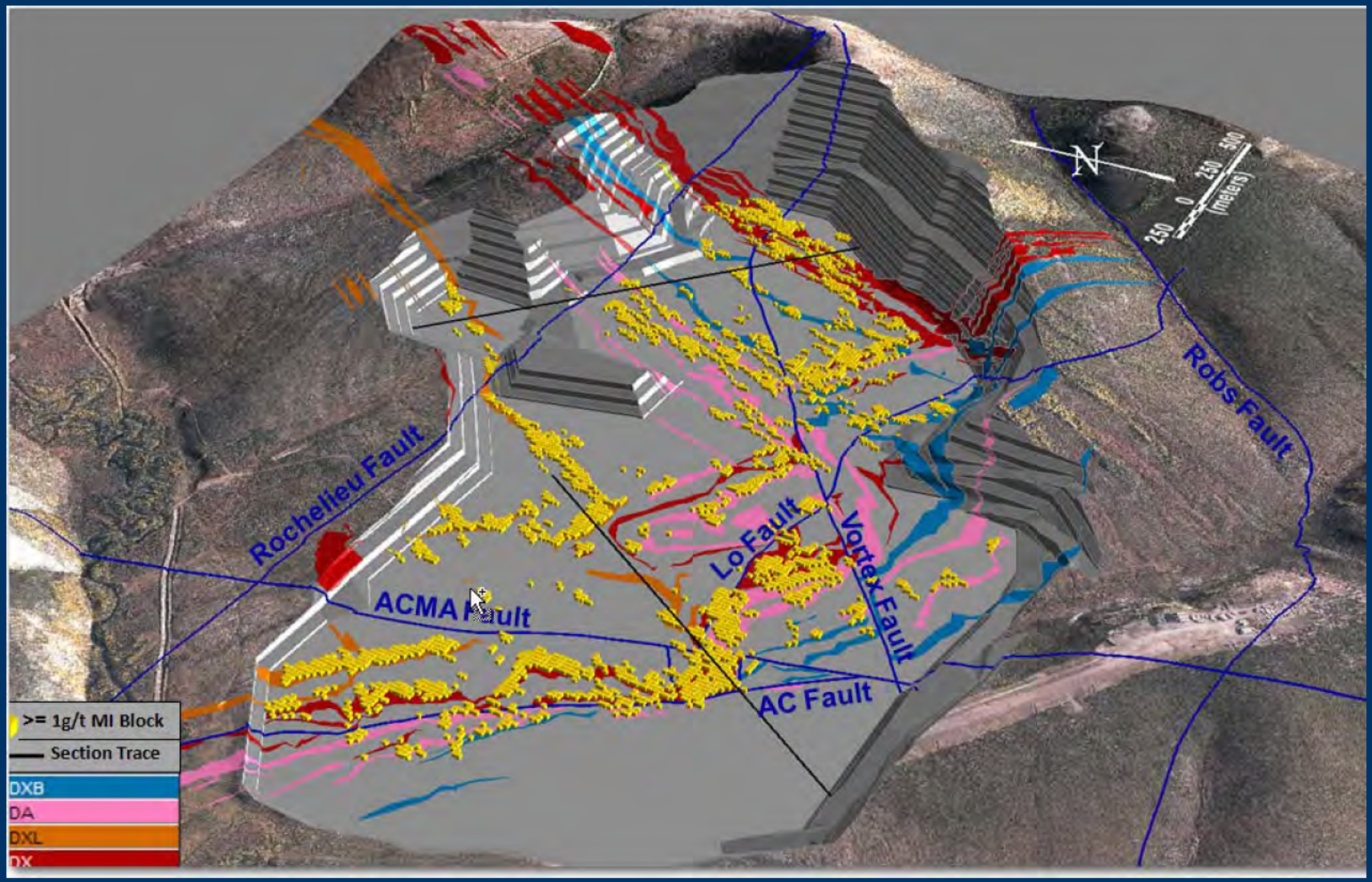
- Construction Phase (3 years)
  - Major investment in regional infrastructure
  - Workforce: ~3,000
  - Payroll: > $1 billion (~$375 million/year)
- Operations (>27 years)
  - Workforce: ~ 900
  - Payroll: ~$100 million/year
  - Indirect and induced payroll: ~$60 million/year
  - Royalties to Calista, and distributed statewide through 7(i) provision of ANCSA
  - Mining license and corporate income taxes to State

Geology

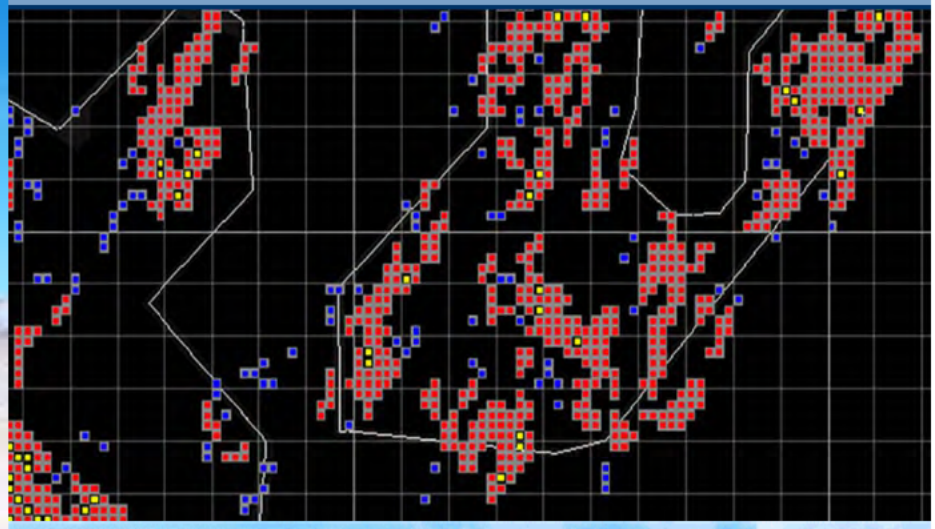


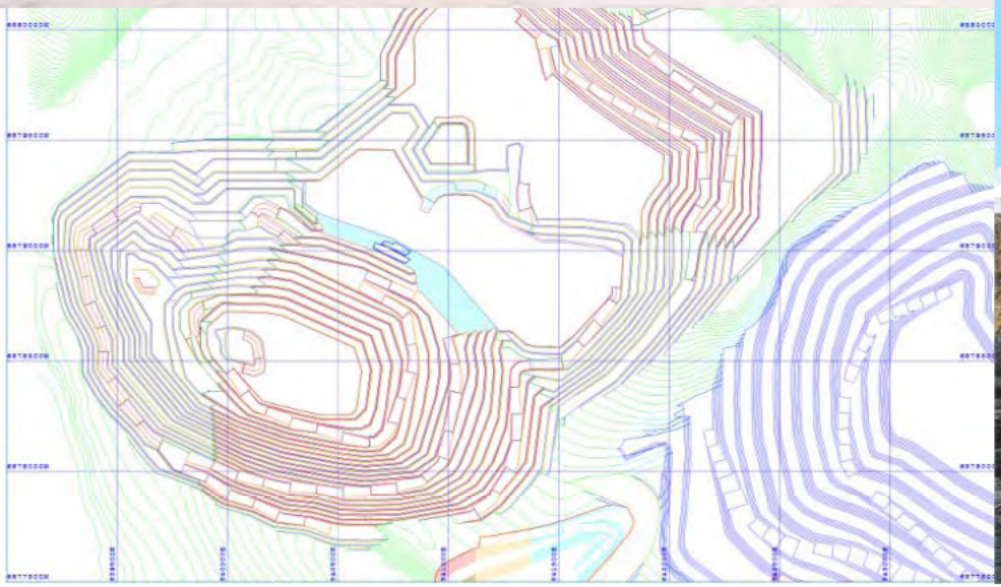
Resource

100 m bench showing +1 g/t Au blocks

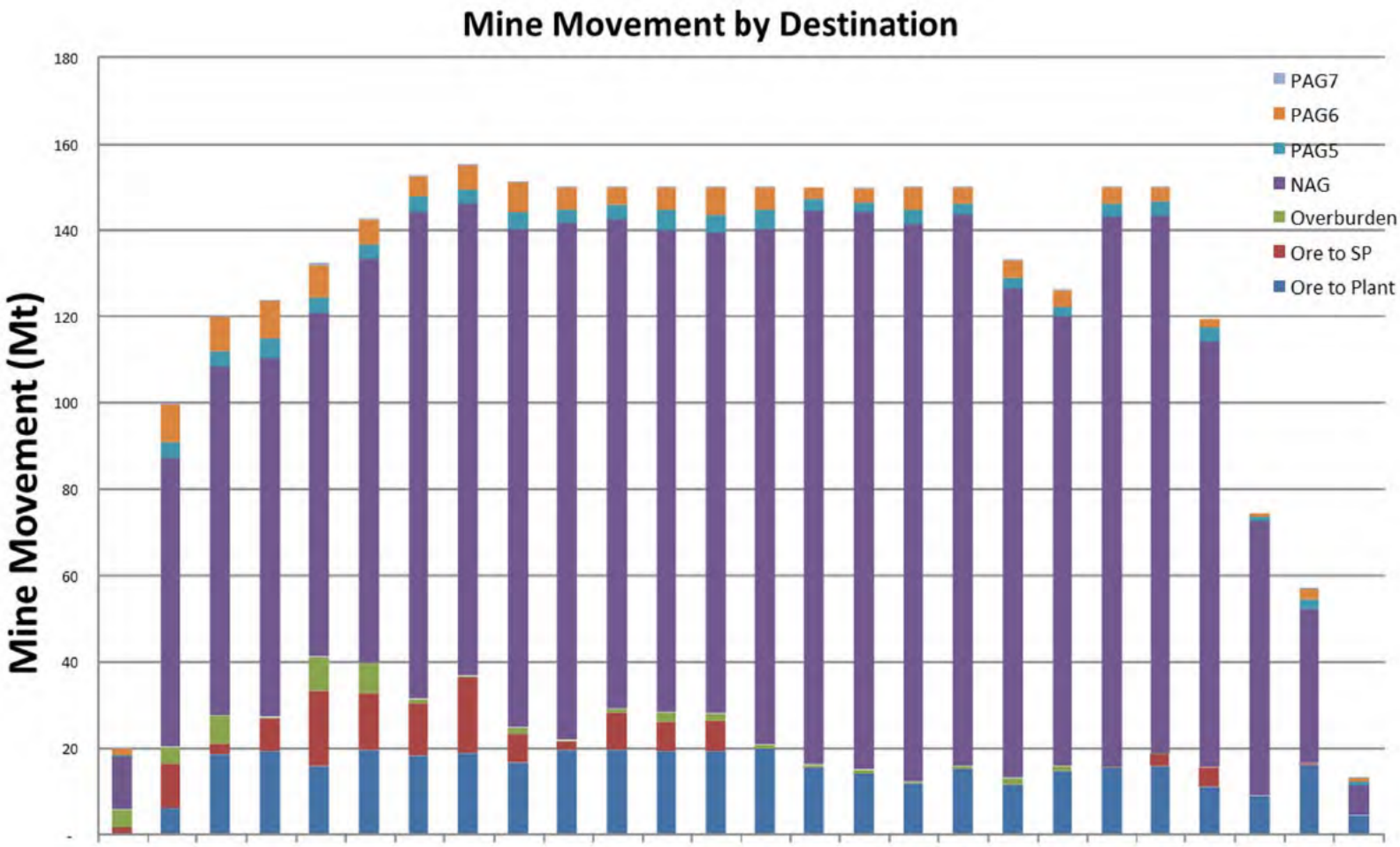


Mining

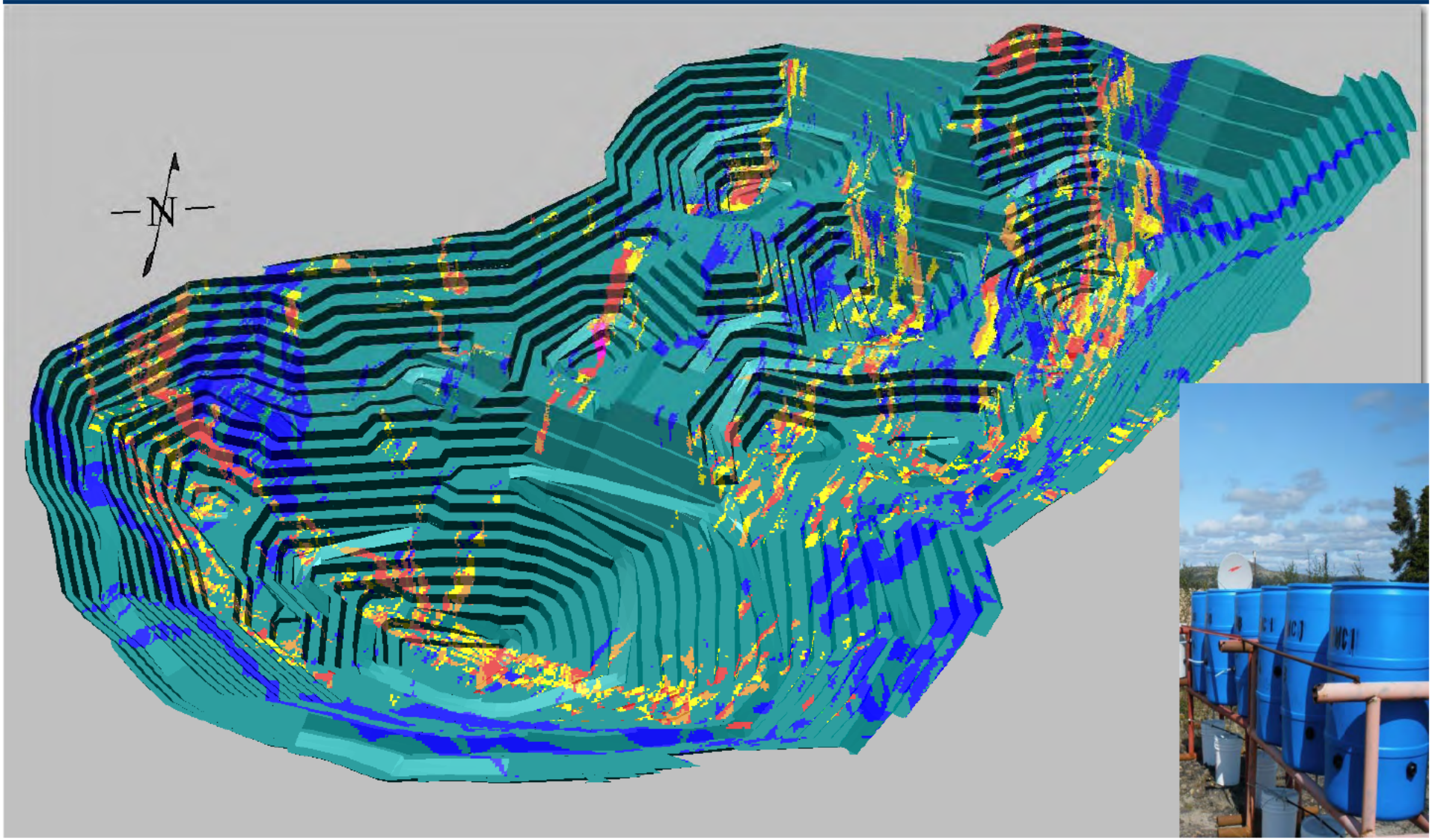




Annual Material Movement



Waste Rock Model



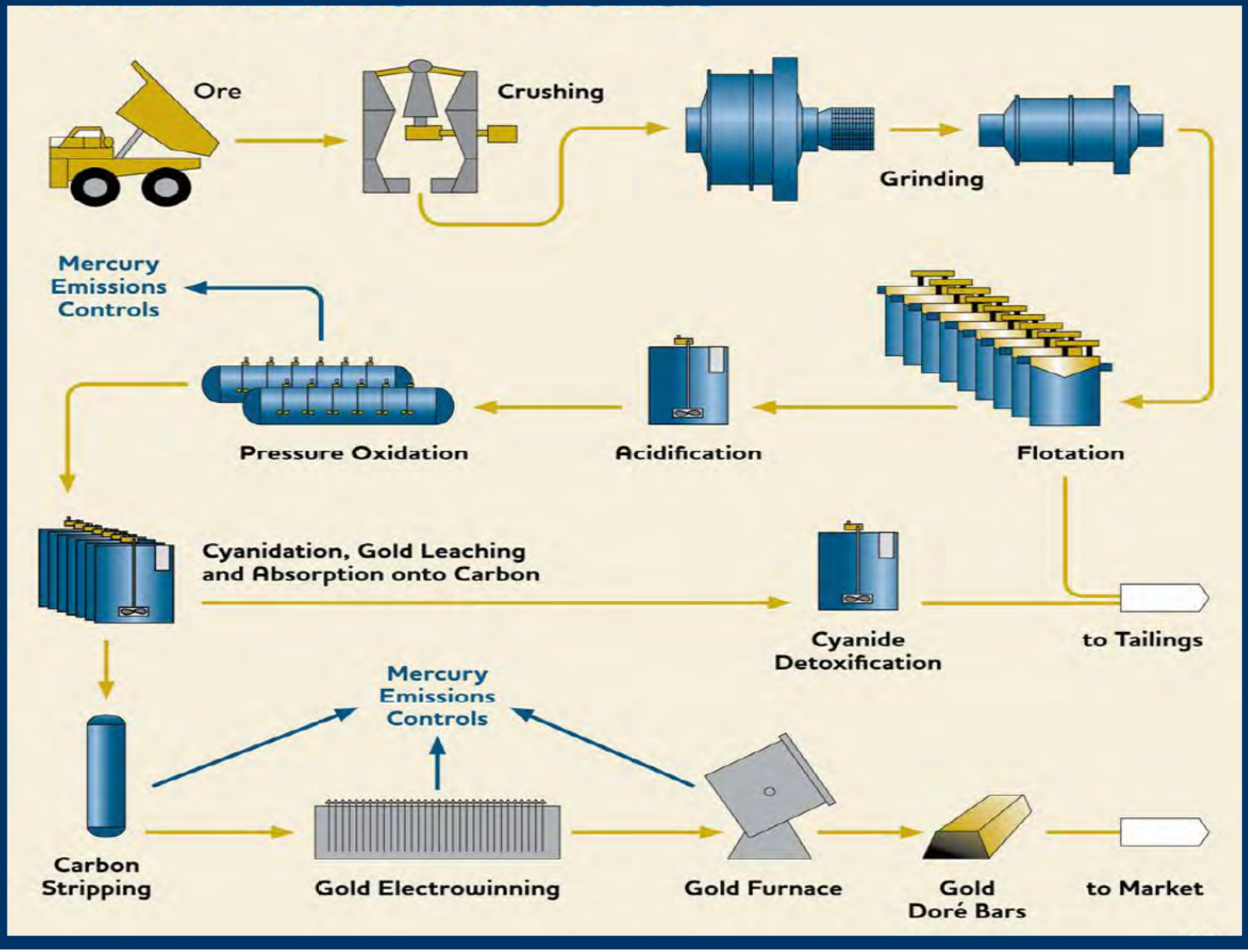
Waste Rock Classification

WRMC	Mt	%	Disposal
NAG	2,519	93	Waste Rock Facility
PAG 5	79	3	Blended in WRF
PAG 6	123	4	Isolated cells in WRF / ACMA backfill
PAG 7	2	0.1	Low-grade ore stockpile / ACMA backfill
Total	*2,723*		

Process Mineralogy

- Au in Donlin ore is all sub-microscopic
  - Disseminated in crystal structure of arsenopyrite and pyrite, hence it is refractory.
  - Not directly leachable ("refractory")
- Arsenopyrite is primary host accounting for ~80% of Au in feed.
- Pyrite, although 3-10 times more abundant than aresenopyrite, carries ~20% of the gold.

Process Flowsheet



Mill Site Layout

Mercury Abatement

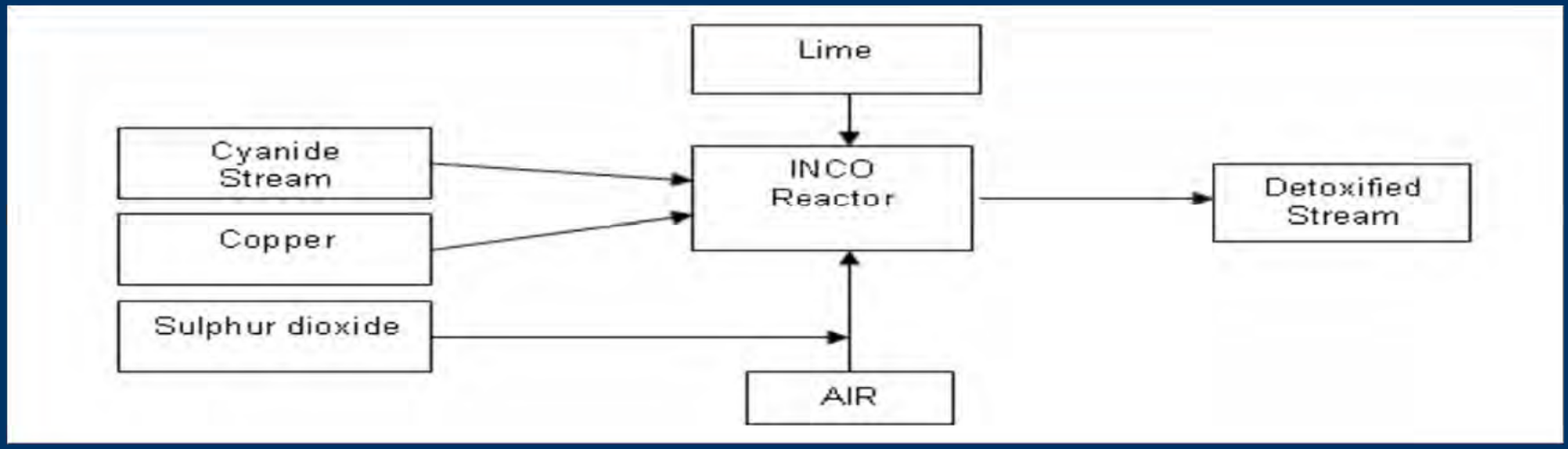
- Major focus during process design
- Expertise developed at Barrick operations in Nevada
- Mercury volatized when heated
  - Autoclave, Carbon Regeneration Kiln, Smelter, Electro-winning Circuit, Retort
- Control design elements
  - Gas quenching
  - Particulate removal
  - Refrigeration
  - Carbon beds

Cyanidation Control

- Process Design and Handling Systems conform to the International Cyanide Management Code (ICMC).
  - Voluntary initiative for cyanide management.
  - Minimize personnel & environmental exposure through design and application of physical & automated control
- Includes:
  - HCN Monitoring (gaseous)
  - Covered leach tanks, operating under partial vacuum (surface) reporting to dedicated gas scrubbing
  - Tan theta design principle for slurry spillage
  - Minimum of two physical spillage control systems
  - Specially designed Iso-tainers
  - Detoxification of residual cyanide in tailings.

Cyanide Detoxification

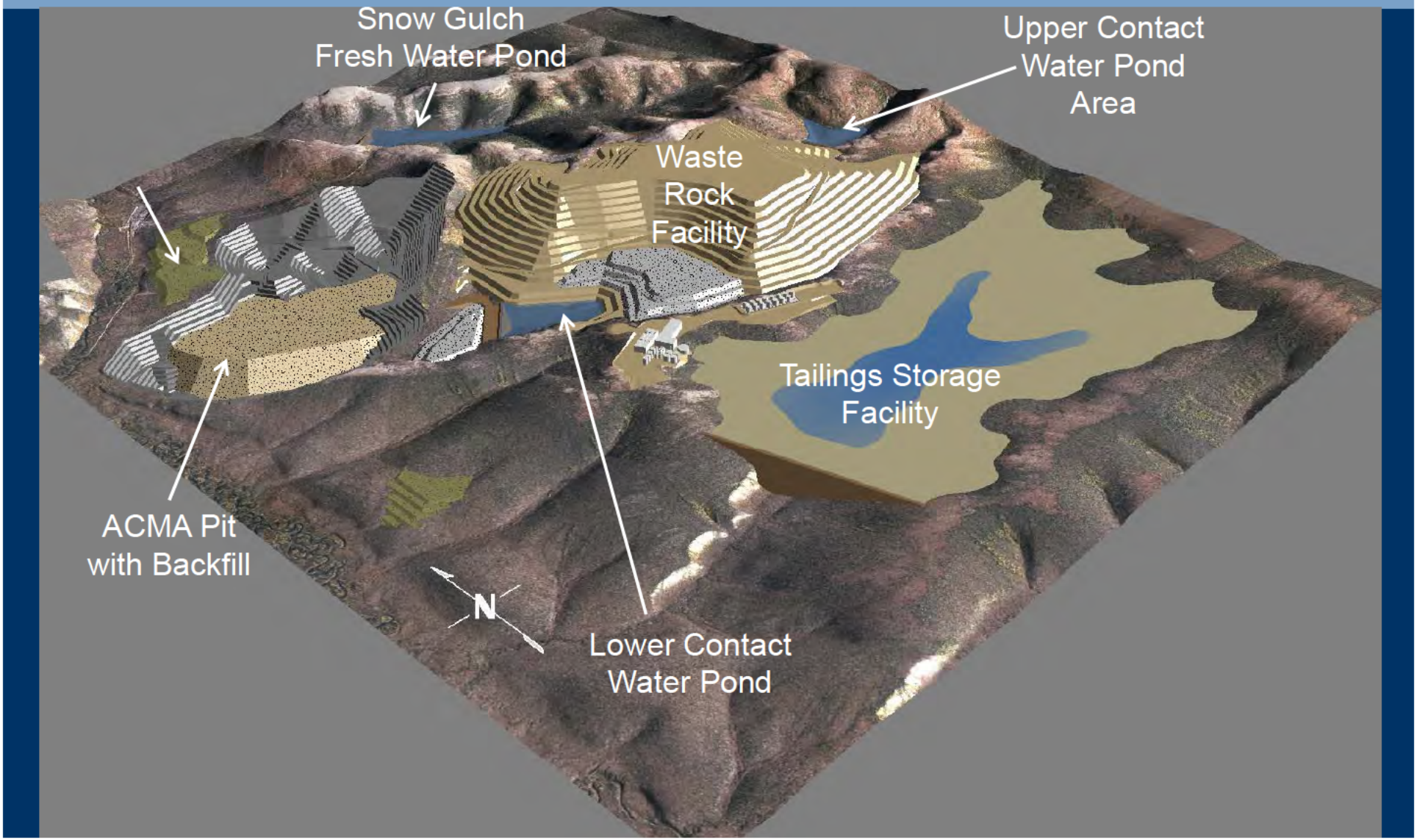
- INCO Air/SO2 cyanide detoxification pre-treatment of the CIL tailings is completed before going to tailings storage facility
- Well known, well tested process



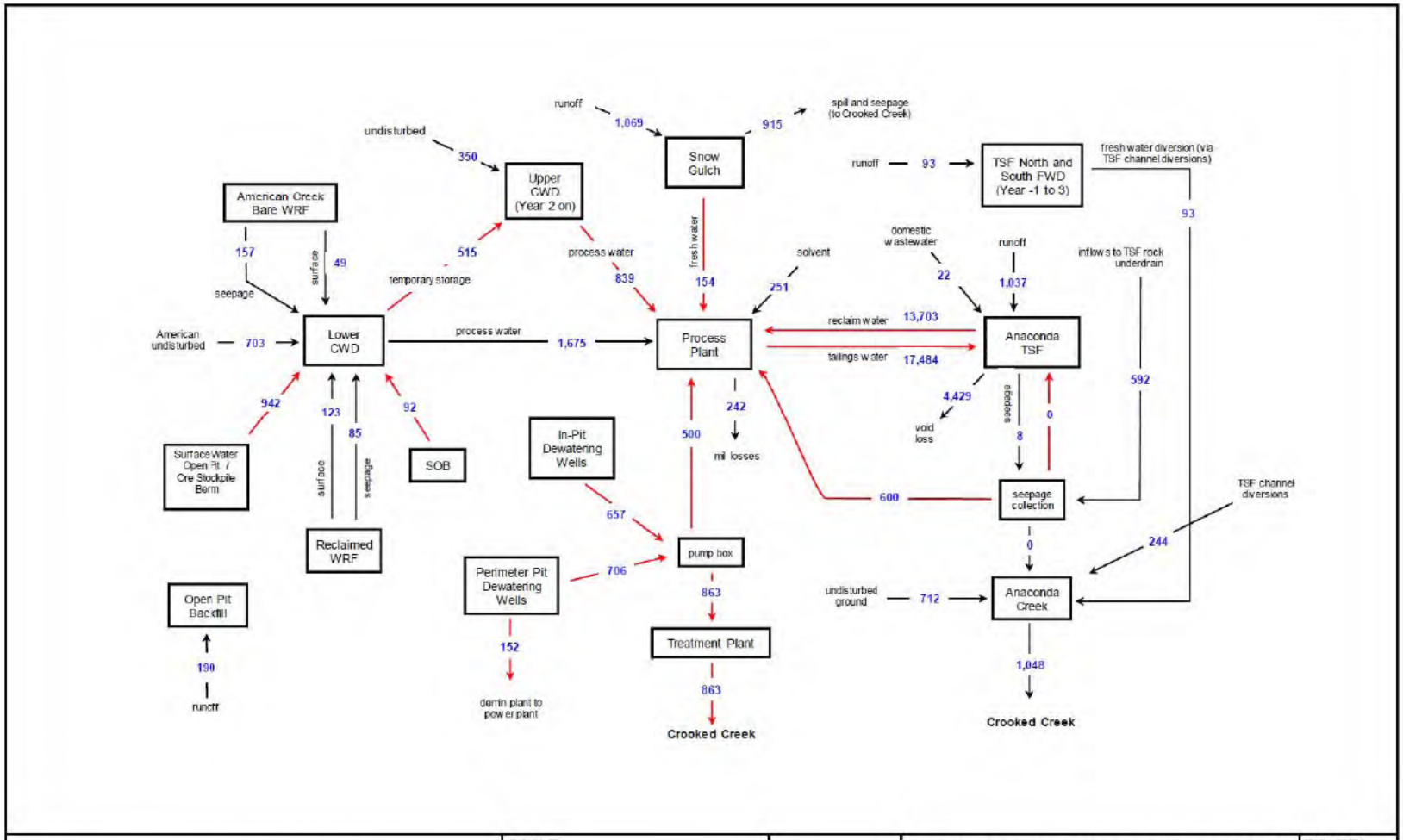
Water Management

- Objectives
  - No discharge of process water during operations
  - Ensure sufficient supply of water during operation
  - Minimize amount of water that has to be treated
- Components
  - Precipitation ~20 in/year
  - American and Anaconda watersheds ~ 7 mi^2 each
  - All contact water captured, used, or stored onsite
  - Discharge of treated dewatering water

Water Management



Water Balance



Note: Values shown are averaged over the simulation period (Year 2 to 27). Rates are in USgpm.
Red arrows denote pumping routes.
Note that all nodes do not balance, in particular the contact water dams and fresh water dam. These nodes do not balance as the dams either start with or end with a surplus of water.

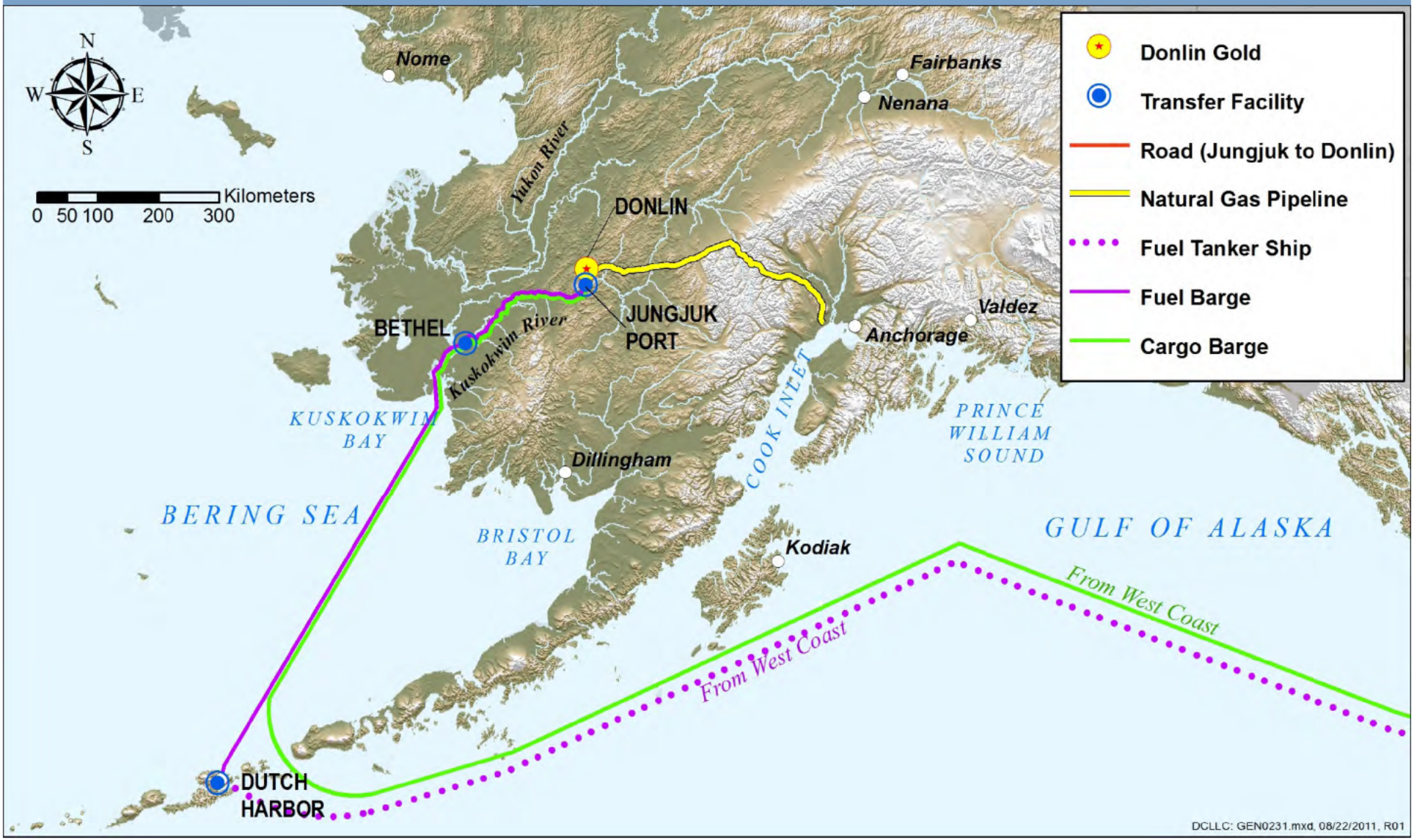
SCALE: N/A

SCHEMATIC WATER BALANCE - OPERATIONS
(Year 2 to Year 27)
DONLIN GOLD PROJECT

FIGURE: **B-2**

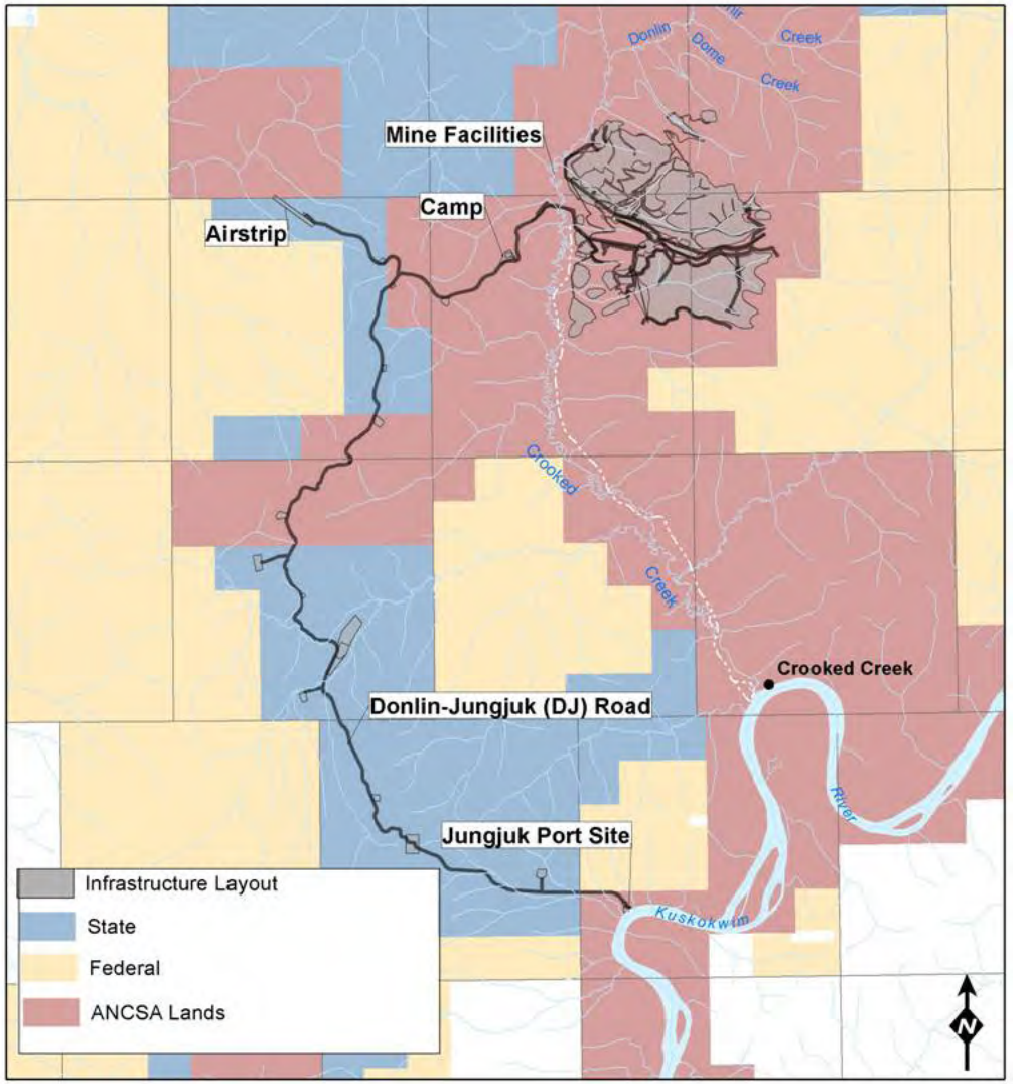
DG: PER0116.mxd, 07/13/12, R04

Logistics & Supply Chain



Access & Infrastructure

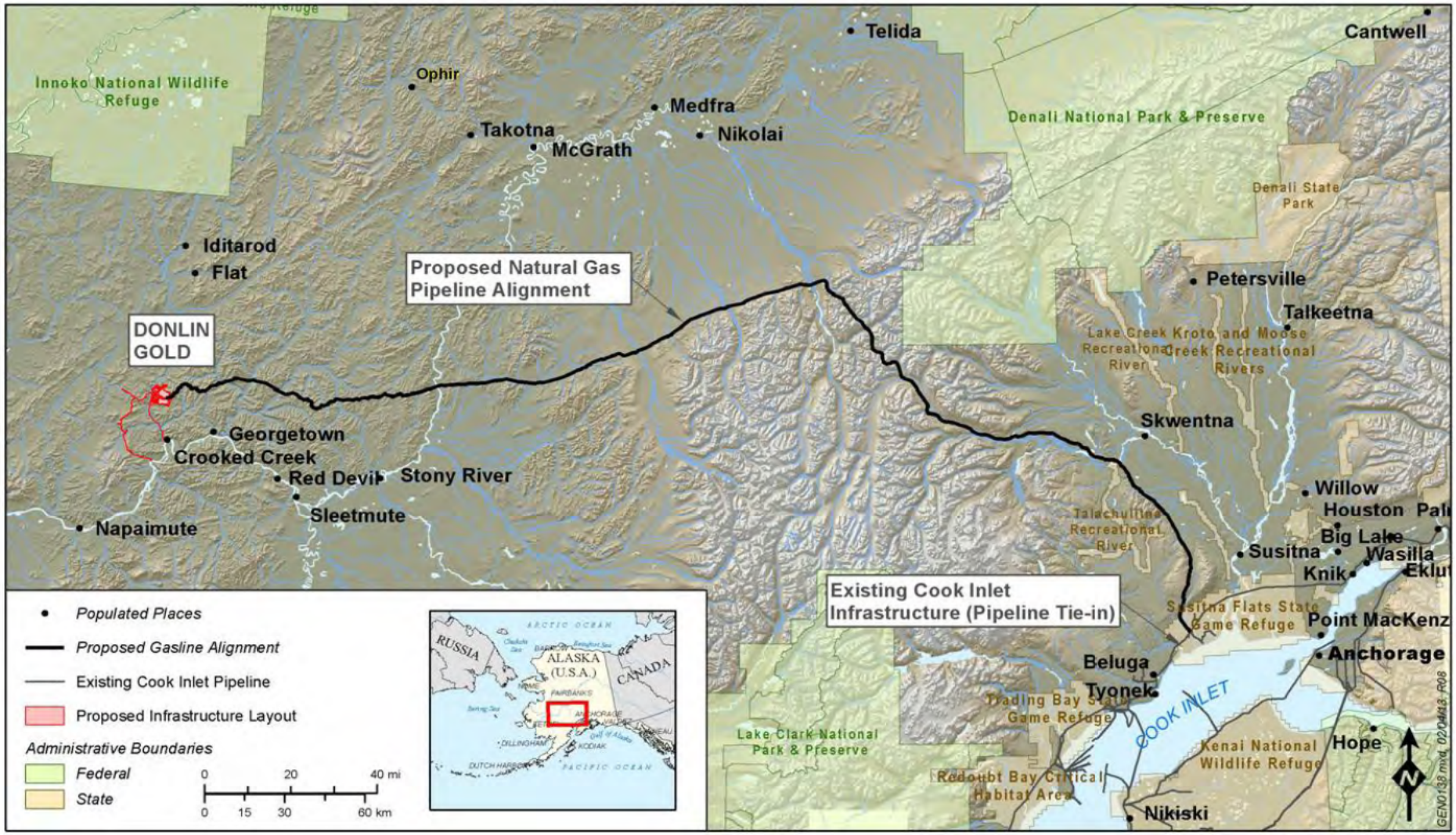
- 27 mile road
- 5000 foot runway
- two port facilities
- 600 bed permanent camp
- 2500 bed construction camp
- ~40 million gallon diesel storage



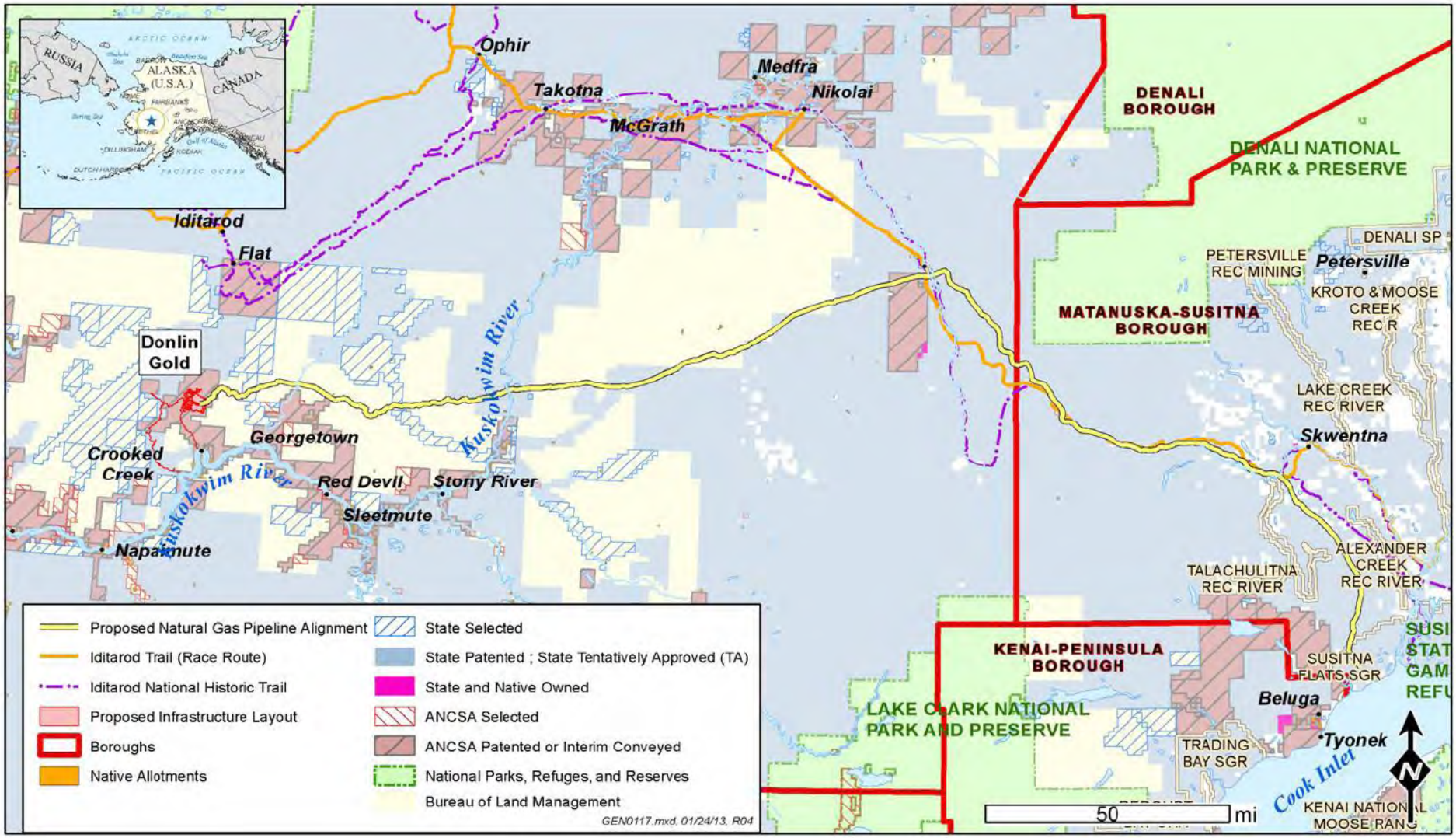
Gas Pipeline

- Description
  - 313 mile, buried, 14” steel pipeline
  - ~70 mmscfd capacity
  - 1,480 psig max allowable operating pressure
- Land Status
  - ~56% State, ~34% BLM, ~10% ANCSA/Private
- Facilities
  - Single compressor station
  - Pig-launching/receiving stations (start, middle, end)
  - ~19 block valves
  - Cathodic protection, leak protection, and SCADA system
- Construction
  - 2 construction spreads, each with 3-4 sections
  - Construction period over 2 winters and 2-3 summers
  - Season for each section based on terrain and geotechnical conditions

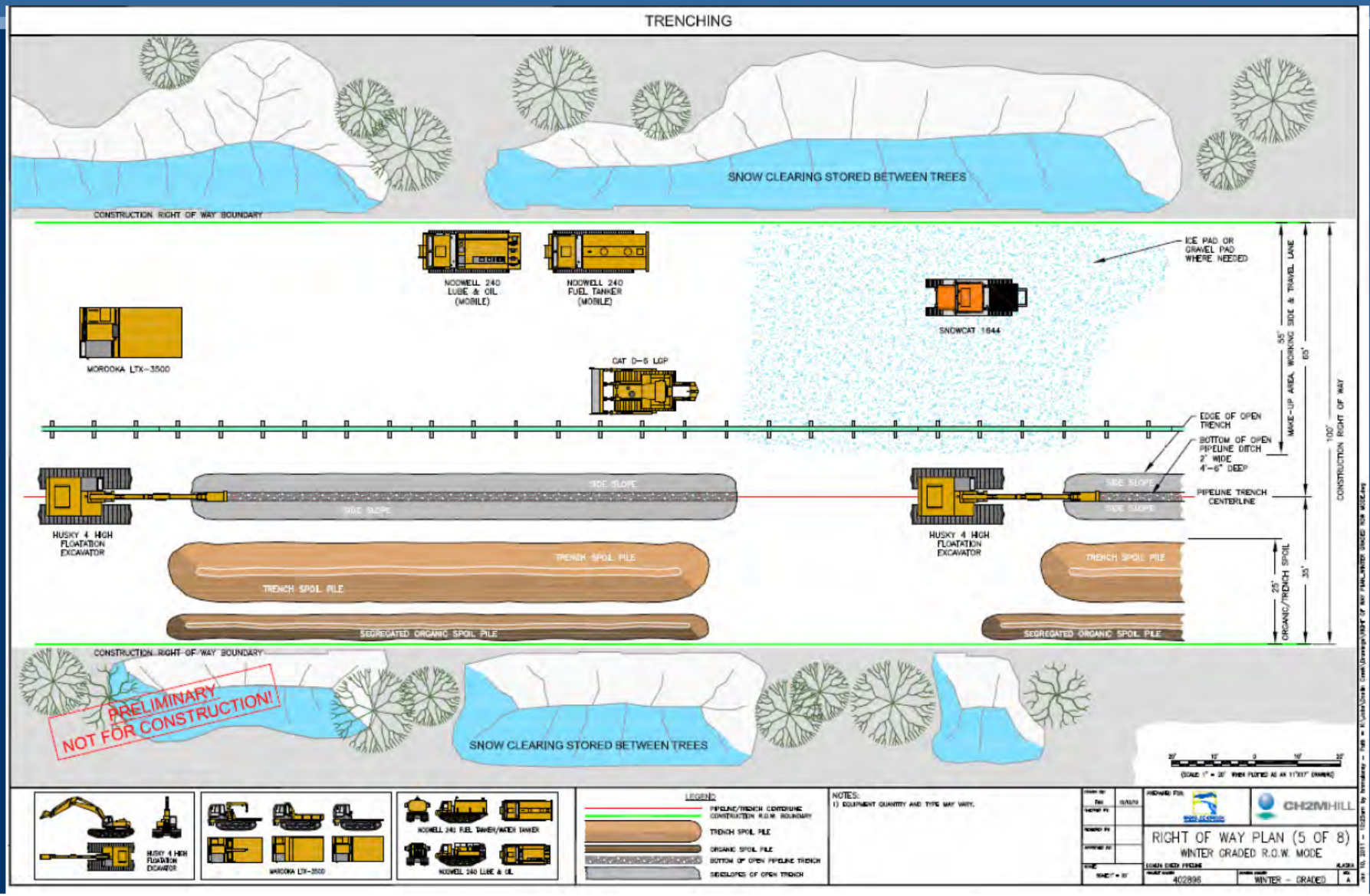
Natural Gas Pipeline Route



Pipeline Land Status



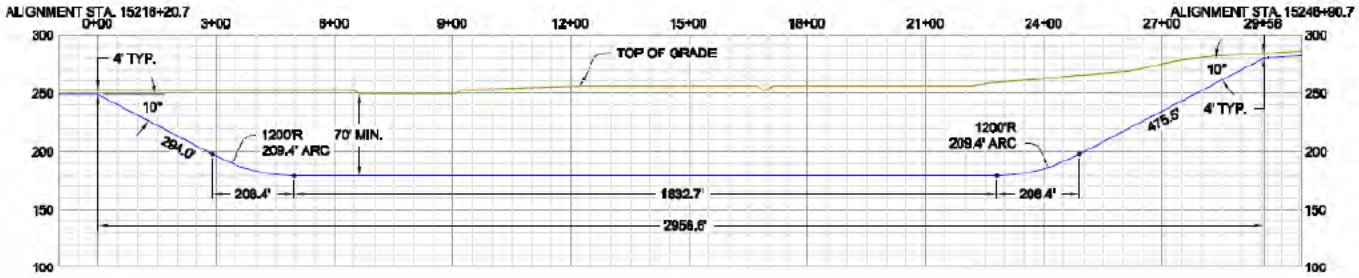
Trenching Typical



HDD Typical

EXHIBIT "A"
CROSSING DETAIL: GEORGE RIVER
LOCATED IN SECTIONS 9 & 10, T23N, R45W

PLAN VIEW
SCALE: 1" = 300'



PROFILE VIEW
HORIZONTAL SCALE: 1" = 300'
VERTICAL SCALE: 1" = 100'

NOTES:
1.) ALL FOREIGN UTILITY LINES SHALL BE LOCATED PRIOR TO ANY EXCAVATING, DIGGING, OR TRENCHING ANYWHERE ON OR NEAR THIS SITE.
2.) CH2MHILL ASSUMES NO RESPONSIBILITY FOR THE SPECIFIC LOCATION OF ANY FOREIGN UTILITY LINES THAT MAY BE PRESENT ON OR NEAR THIS SITE, NOR IS ANY LIABILITY ASSUMED FOR ANY LEGAL ACTION WHICH RESULTS FROM A DISCOVERY OF FOREIGN UTILITY LINE IN ADDITION TO OR IN A DIFFERENT LOCATION THAN SHOWN ON THE DRAWING.
3.) EXISTING INFRASTRUCTURE WILL BE LOCATED PRIOR TO CONSTRUCTION BY THE CONTRACTOR. INSTALLATION DEPTH OF THE PROPOSED 12" PIPELINE WILL BE ADJUSTED UP OR DOWN TO KEEP A 24" MINIMUM CLEARANCE FROM EXISTING STRUCTURES. MINIMUM DEPTH OF THE PROPOSED 12" PIPELINE WILL MEET OR EXCEED EXISTING GOVERNING AGENCY REQUIREMENTS FOR THIS CROSSING.
4.) CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF THE DEPTH OF ALL WATER CROSSINGS PRIOR TO DRILLING. ONCE THE DEPTH IS FIELD VERIFIED, THE MINIMUM COVER MUST BE RECALCULATED AND REPORTED BACK TO THE COMPANY.

NO.	DESCRIPTION	DATE	BY	CHK	APPR.
C	UPDATED LIDAR, REVISED HDD	03/07/11	KMR	TKL	CLJ
B	UPDATED PER CURRENT STATIONING	10/28/10	SEH	TKL	CLJ
A	ISSUED FOR REVIEW	05/22/10	AWM	TKL	CLJ

CLIENT: DONLIN CREEK
PREPARED BY: CH2MHILL

CROSSING DETAIL
GEORGE RIVER

SCALE: AS NOTED

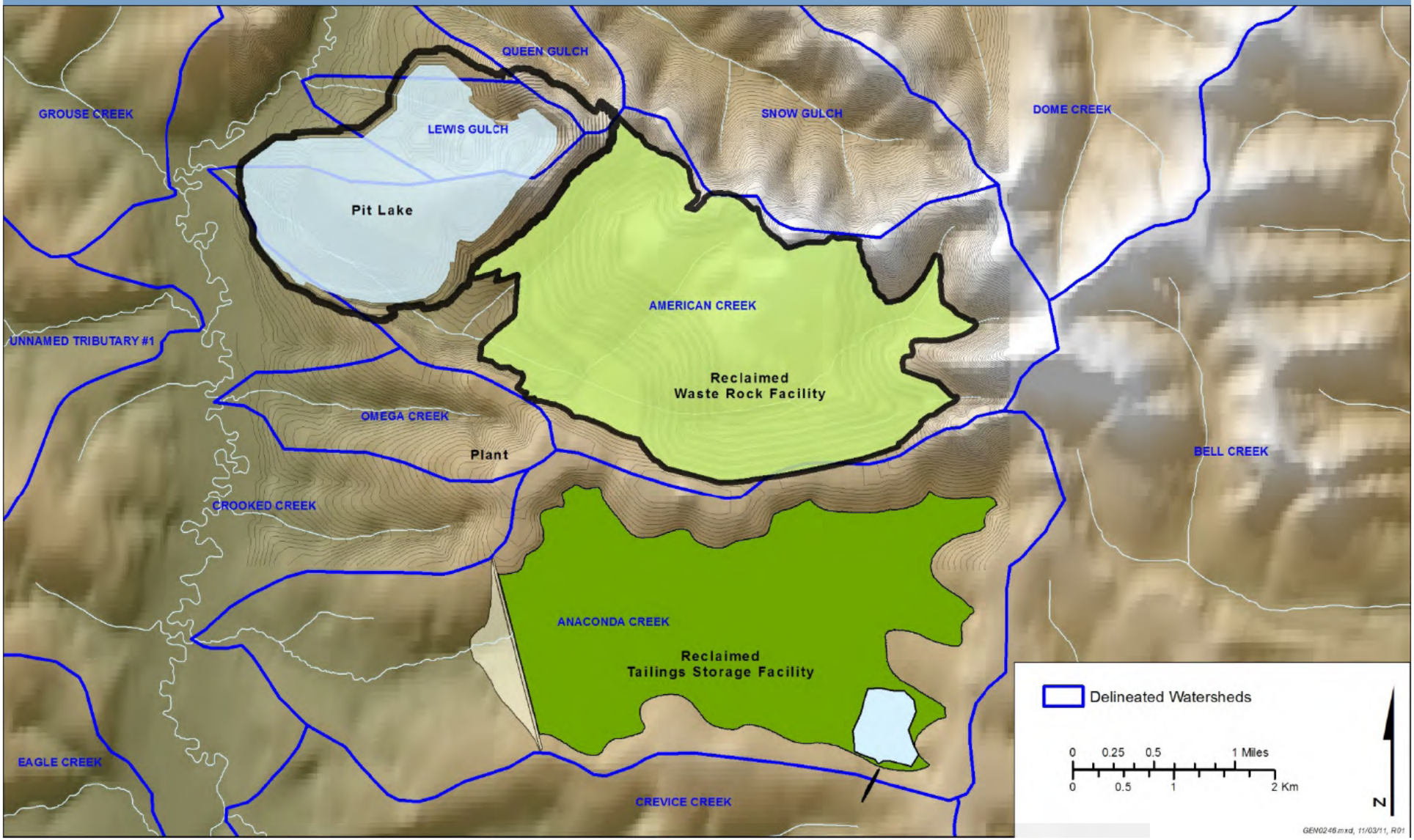
DRAWN BY	DRAWN DATE	CHECKED BY	PLOT DATE
AWM	05/22/10	TKL	03/10/11

RIV-XING-005 REV. C

Reclamation & Closure

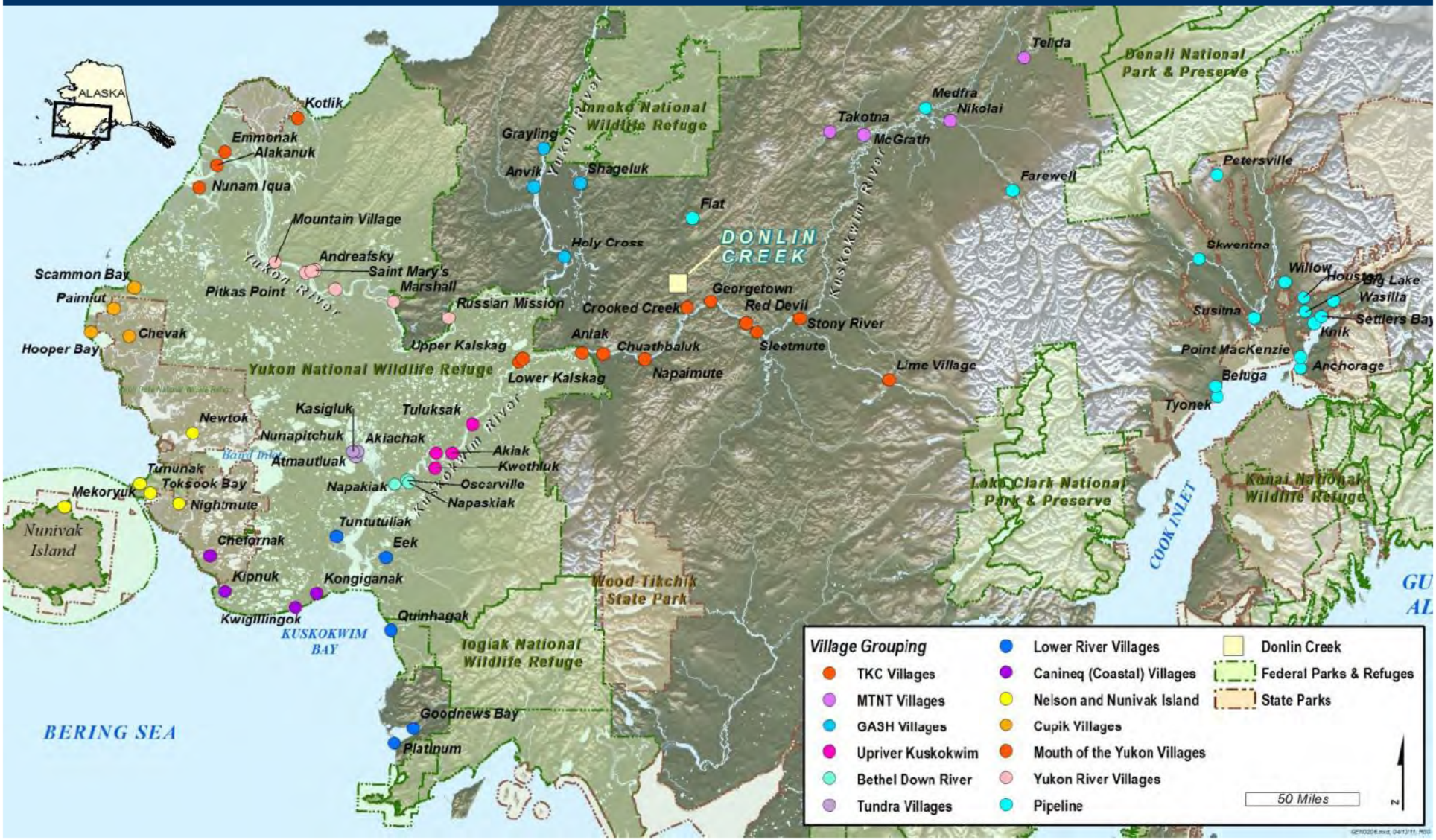
- "Design for Closure"
  - Minimize footprint
  - Maximize concurrent reclamation
  - Manage waste rock and tailings facilities for long-term stability
  - Minimize accumulation of water in facilities
- Closure Features
  - Dry closure of tailings facility
  - Removal of all process facilities
  - All contact water reports to pit lake
  - Plan for long-term treatment

Design for Closure



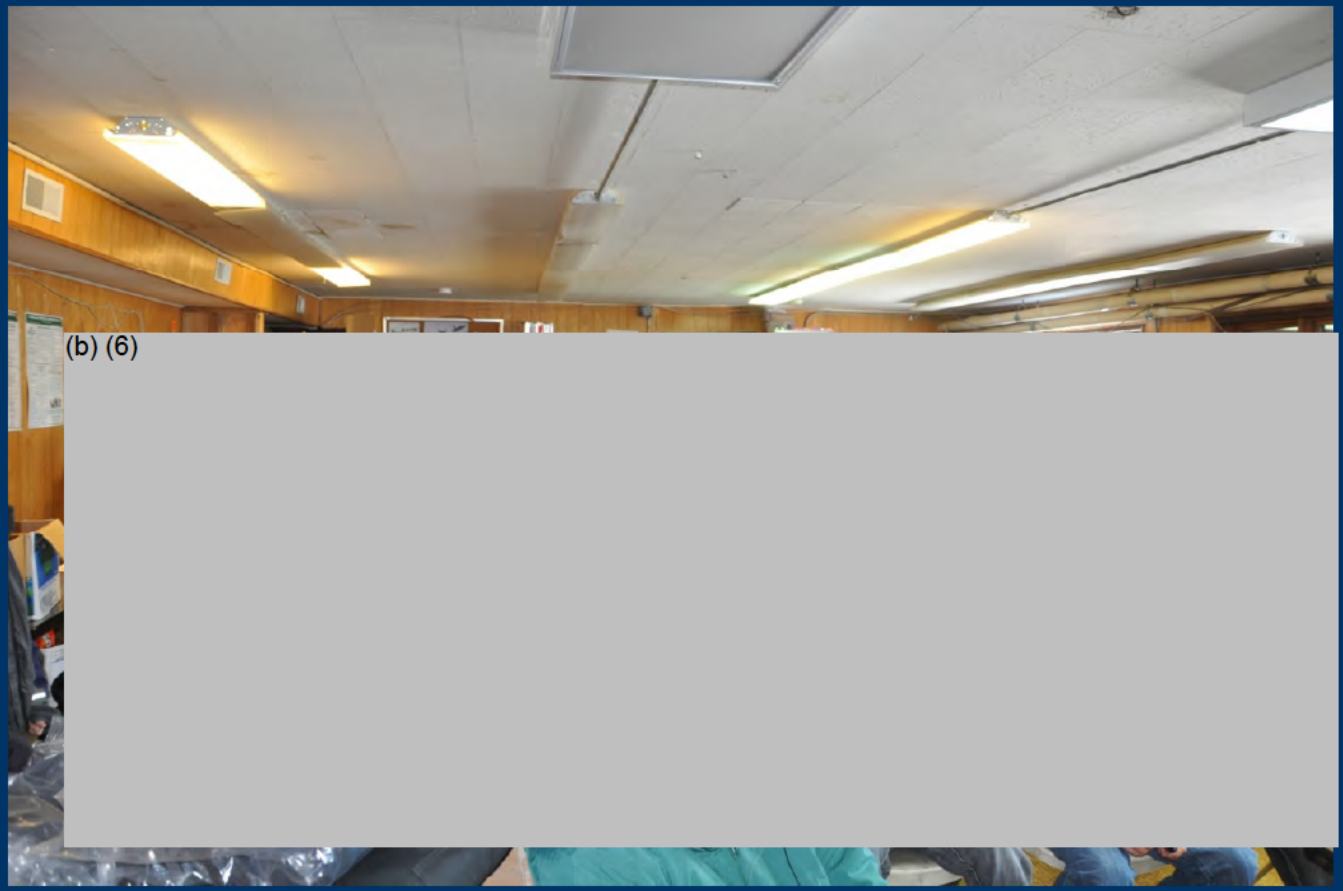
Community Engagement

Community Engagement



Stakeholders

- Villages
- Tribes
- Schools
- Interest groups
- Individuals
- Governments
- Native Corporations

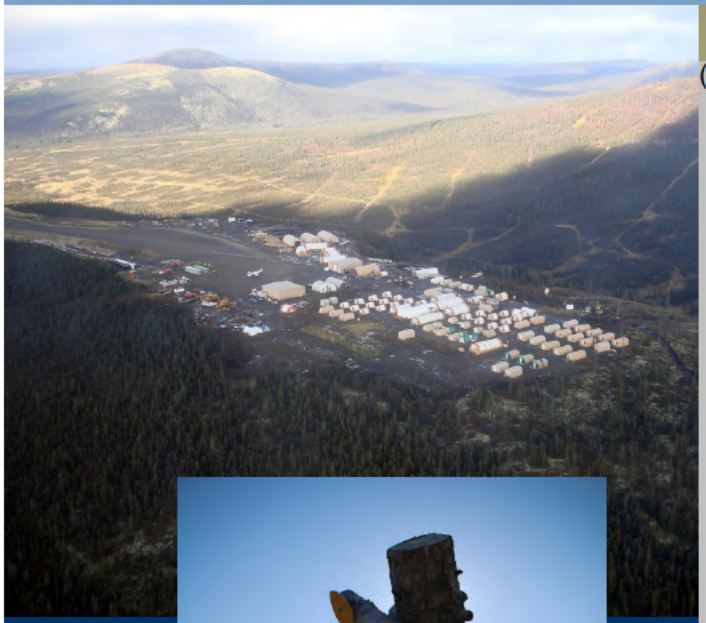


Community Engagement

- Stakeholder Dialogue
  - Village meetings, project site and mine tours
- Workforce Development
  - Jobs, training, and capacity building
- Communications
  - Monthly newsletter, website, social media
- Community Investment
  - cultural preservation, environmental protection, community wellness, education
  - community capacity building and sustainability

Questions?

DONLIN GOLD



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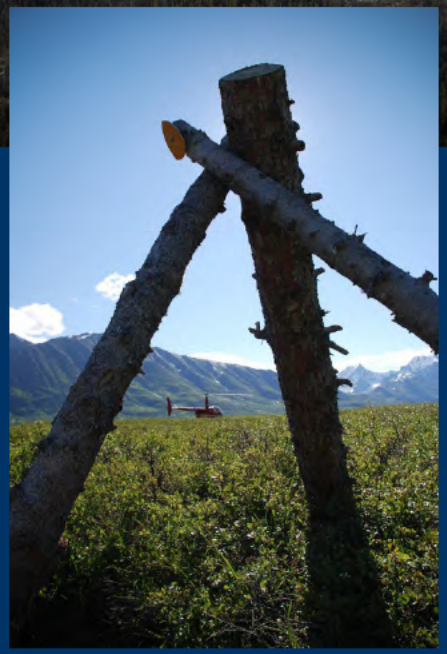

Alaska Department of Environmental Conservation

Responsible for protecting human health and the environment

- Develop regulatory standards and other requirements for protection of human health and the environment
- Issue permits and other authorizations for emissions, discharges, and disposal and monitor compliance with those authorizations
- Oversee oil discharge prevention and contingency planning
- Conduct oil spill drills to lower the probability and severity of spills
- Monitor and report on the quality of the environment and changes that could impact human health
- Educate and assist the public, communities, businesses and industry on all forms of environmental matters
- Work with federal agency counterparts at the Environmental Protection Agency (EPA), Corp of Engineers, Bureau of Land Management (BLM) Pipeline and Hazardous Materials Safety Administration (PHMSA) and others on federal environmental law and how it is applied in Alaska.
- Investigate violations and enforce state environmental law

The National Environmental Policy Act (NEPA) (42 U.S.C. 4321-4347) does not require protection of the environment. NEPA simply requires agencies to consider and inform the public and the decision makers. It is the other laws and regulations that lead to protective standards for the environment.

> *"Other statutes may impose substantial environmental obligations on federal agencies, but NEPA merely prohibits uninformed – rather than unwise – decisions."* *[Robertson v. Methow Valley Citizens Council- 1989)*

Federal Law

- Clean Water Act (Section 404, 402, 401) – 33 U.S.C. 1251 et seq
- Clean Air Act (Section 309) 42 U.S.C. 7401 et seq
- Oil Pollution Act of 1990 – 33 U.S.C. 2701-2761
- Endangered Species Act (16 U.S.C. 1531 et seq)/ Essential Fish Habitat
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA)
- National Historic Preservation Act (NHPA)

Alaska Law

- AS 46.03 - Environmental Conservation
- AS 46.04 - Oil and Hazardous Substances Pollution Control
- AS 46.14 - Air Quality Control
- AS 17.20 – Alaska Food, Drug and Cosmetic Act

- 18 AAC 30 – Environmental Sanitation
- 18 AAC 31 – Alaska Food Code
- 18 AAC 50 – Air Quality Control
- 18 AAC 60 – Solid Waste Management
- 18 AAC 62 – Hazardous Waste
- 18 AAC 70 – Water Quality Standards
- 18 AAC 75 – Oil and Hazardous Substances Pollution Control

PERMITTING AUTHORITY	NEPA ANALYSIS
Air Emissions	Air Emissions – Total for Entire Project
Construction Permits – Power Plant	Pipeline Project Emissions
Operating Permits – Power Plant	Construction Emissions
	Operations Emissions
	Mine Project Emissions
	Construction Emissions
	Operations Emissions-
	Port Project Emissions
	Construction Emissions
	Operations Emissions
Open Burn Permits – Land Clearing	Greenhouse Gas Emissions
Wastewater Discharges / Water Quality	Wastewater Discharges / Water Quality
Mine Tailings Facility Discharge Permit	Mine Tailings Facility Discharges
Wastewater Treatment and Disposal Permit	Mine Processing Facility Discharges
Domestic Wastewater Permit (Camp)	Domestic Wastewater Permit (Camp)
Domestic Wastewater Permit (Construction)	Domestic Wastewater Permit (Construction)
Stormwater Program General Permit	Pipeline Construction Stormwater Discharges
Hydrostatic Test Water Discharge (pipeline)	
Water Quality Certification of Fill Permit	Section 404 Permit – Wetlands Permit
Water Quality Monitoring Plan Approval	
Quality Assurance Project Plan	
Solid Waste	Solid Waste
Industrial Waste Monofill Solid Waste Permit	Mine Tailings Plan
Integrated Waste Management Permit	Reclamation and Closure Plan
Proof of Financial Responsibility (in consultation with DNR)	Post Closure Monitoring
Reclamation and Closure Plan	
Spill Prevention and Response	Spill Prevention and Response
Fuel Storage Tank Authorizations	Fuel Storage/Transport
Fuel Transport Vessel Spill Response Plans	Effect of potential fuel spills on land and water
Environmental Health	Environmental Health
Drinking Water System Permit	Effect of population increases on local drinking water systems
Food Service Permit	Mercury issues
Contaminated Sites	Contaminated Sites